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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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HEWLETT-PACKARD COMPANY
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EXAMINER	
BATURAY, ALICIA	
ART UNIT	PAPER NUMBER
2155	

DATE MAILED: 02/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/858,080

Applicant(s)

COLLINS ET AL.

Examiner

Alicia Baturay

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This Office Action is in response to the amendment filed 3 November 2004.
2. Claims 1, 5, 7, 8, 11, 13, and 16-20 were amended.
3. Claims 1-21 are pending in this Office Action.

Response to Amendment

4. The objection to the specification regarding trademarks was addressed and is withdrawn.
5. The rejection of claims 3 and 12 under 35 U.S.C. 112, second paragraph, are withdrawn.
6. Applicant's arguments have been fully considered but they are not persuasive for the reasons set forth below.
7. The Office Action has been corrected to reflect claim 21 as being unpatentable over Nolan, Kanada and Comer, and the examiner appreciates Applicant's suggestion.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1, 3, 4, 5, 8, 13, 14, and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nolan et al. (U.S. 6,640,278) and further in view of Kanada (US 2001/0039576 A1).

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10. As to claims 1, 3, and 16, Nolan teaches a method for managing transactions at a network storage device (Nolan, col. 1, lines 27-29) comprising: receiving and reading a transaction at the network storage device (Nolan, col. 2, lines 46-49) and assigning a priority to the transaction (Nolan, col. 27, lines 65-67), but does not disclose a usage policy. However, Kanada does teach a usage policy (Kanada, page 1, paragraph 8). It would have been obvious to one skilled in the art at the time of the invention to combine the teachings of Nolan and Kanada to contribute toward the goal of minimal human network administration so that only a single server needs to be updated and all related network devices will automatically download this update and behave similarly (Kanada, page 1, paragraph 7).
11. As to claim 4, the combination of Nolan and Kanada (Nolan-Kanada) discloses the invention substantially as described in claim 1, including ordering the transaction among other transactions in a queue at the network storage device (Nolan, Fig. 29; col. 29, lines 29-35).
12. As to claim 5, Nolan-Kanada discloses the invention substantially including managing transactions at a network storage device (Nolan, col. 1, lines 27-29) comprising: generating a usage policy for the network storage device and distributing the usage policy to the network storage device (Kanada, Fig. 2) for prioritizing transactions (Kanada, Fig. 3B, element 387; page 10, paragraph 152). It would have been obvious to one skilled in the art at the time of the invention to combine the teachings of Nolan and Kanada to contribute toward the goal of minimal human network administration so that only a single server needs to be updated and

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all related network devices will automatically download this update and behave similarly (Kanada, page 1, paragraph 7).

13. As to claims 8 and 13, Nolan-Kanada discloses the invention substantially including a usage policy being stored on a network storage device (Kanada, page 2, paragraph 28) and ability to prioritize transactions based on a usage policy (Kanada, Fig. 3B, element 387; page 10, paragraph 152). It would have been obvious to one skilled in the art at the time of the invention to combine the teachings of Nolan and Kanada to contribute toward the goal of minimal human network administration so that only a single server needs to be updated and all related network devices will automatically download this update and behave similarly (Kanada, page 1, paragraph 7).

14. As to claim 14, Nolan-Kanada discloses the invention substantially including the ability to define a usage policy at a policy management server and the ability to distribute it to a network storage device (Kanada, page 14, paragraph 188).

15. As to claim 17, Nolan-Kanada discloses the invention substantially, including the ability to install on a policy management server (Kanada, page 3, paragraph 66), define a usage policy and install the policy on a network storage device (Kanada, page 14, paragraph 188), and prioritize a number of transactions (Kanada, Fig. 3B, element 387; page 10, paragraph 152).

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16. As to claims 18 and 19, Nolan-Kanada discloses the invention substantially, including transactions flowing into and out of the network storage device (Kanada, page 9, paragraph 136).
17. Claims 2, 6, 9, and 15, are rejected under 35 U.S.C. 103(a) as being unpatentable over Nolan and Kanada as applied to claim 1 above, and further in view of Gibson et al ("Network Attached Storage Architecture, 2000).
18. As to claims 2, 6, 9, and 15, Nolan-Kanada discloses the invention substantially including receiving the usage policy at the network storage device (Kanada, page 14, paragraph 188) and identifying a network storage device on a network (Nolan, col. 25, lines 26-29). While Nolan-Kanada discloses a network storage device and discusses SAN (Nolan, col. 1, lines 43-46), it does not expressly teach a NAS. However, Gibson et al. state that the technologies of NAS and SAN are converging (page 42, "Converging of NAS and SAN"). Therefore it would have been obvious to one skilled in the art at the time the invention was made to combine Nolan- Kanada and Gibson (Nolan-Kanada-Gibson) to view these storage techniques as interchangeable alternatives for solving the same set of customer problems (Gibson, page 42).

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19. Claims 7, 10, 11, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nolan-Kanada as applied to claim 8 above, and further in view of Comer("Internetworking with TCP/IP, 1995).

20. As to claims 7 and 10, Nolan-Kanada discloses the invention substantially including a usage policy comprising of a number of rules (Kanada, Fig. 4A; page 2, paragraph 21), each defining a meta data and a corresponding priority and where the policy assigns a priority to a transaction if it satisfies a rule (Kanada, Fig. 3B, element 381; page 10, paragraph 152). But Nolan-Kanada do not explicitly teach the use of meta data. However, the Microsoft Computer Dictionary defines "meta data" as "data about data." Comer does teach the use of a packet that includes a header which contains information about the contents of the data and a data area (Comer, page 92, Fig. 7.2), and the header also contains information on the precedence of the packet (Comer, page 93, Fig. 7.4). In the Differentiated Services technique, Kanada describes the DSCP as a value that describes an aggregate of packets (Kanada, page 1, paragraph 19), and therefore this header would be considered meta data. It would have been obvious to combine the teachings of Nolan-Kanada with Comer because all three references discuss the TCP/IP protocol(Nolan, col. 8. lines 20-21; Kanada, page 5, paragraph 88, Comer, page 92), which include a packet structure that includes a header and a data area.

21. As to claim 11, Nolan-Kanada discloses the invention substantially as described in claim 8, including use of a packet being transmitted from one network device to another (Kanada, page 1, paragraph 17), and the meta data field being read against a usage policy (Kanada,

page 1, paragraph 19) and the transaction ordered in a queue according to priority (Kanada, page 10, paragraph 152). But Nolan-Kanada does not explicitly disclose the use of at least one data field and at least one meta data field. The Microsoft Computer Dictionary defines “meta data” as “data about data.” Comer does teach the use of a packet that includes a header which contains information about the contents of the data and a data area (Comer, page 92, Fig. 7.2), and the header also contains information on the precedence of the packet (Comer, page 93, Fig. 7.4). In the Differentiated Services technique, Kanada describes the DSCP as a value that describes an aggregate of packets (Kanada, page 1, paragraph 19), and therefore this header would be considered meta data. It would have been obvious to combine the teachings of Nolan-Kanada with Comer because all three references discuss the TCP/IP protocol (Nolan, col. 8. lines 20-21; Kanada, page 5, paragraph 88, Comer, page 92), which include a packet structure that includes a header and a data area.

22. As to claim 20, claim 11 performs the same functions as claim 20. Therefore, paragraph 21 of this Office Action discloses all of the limitations of claim 20.

23. As to claim 21, Nolan-Kanada discloses the invention substantially including determining transmission of transactions based on priority (Kanada, page 1, paragraphs 19).

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24. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nolan-Kanada as applied to claim 8 above, and further in view of Mahon, et al ("Requirements for a Policy Management System," 1999).

As to claim 12, Nolan-Kanada discloses the invention substantially including a usage policy comprising of a number of rules (Kanada, page 2, paragraph 27). But, it fails to teach default rules. However, Mahon teaches a default rule that is enacted if none of the other rules match the action type (Mahon, page 69). It would have been obvious to combine the teachings of Nolan-Kanada with that of Mahon in order to assure that the rules set forth on the network account for any contingencies and to contribute toward the goal of minimal human network administration (Kanada, page 1, paragraph 7).

Response to Arguments

25. Applicant's arguments filed 3 November 2004 have been fully considered, but they are not persuasive; with the exception of the number of references used for the rejection of claim 21.
26. ***Applicant Argues:*** As to claim 1, Applicant states "But Nolan fails to disclose assigning priority to any of the received transactions. Kanada discloses a network policy transmission method from a policy server to a network node. Kanada does not disclose a usage policy. There is no discussion in Kanada of using a usage policy to assign priority to transactions."

In response: The examiner respectfully submits that Nolan teaches “the storage server receives a control signal initiating a hot copy process...parameters are maintained on the storage server...indicating a relative priority of the hot copy process with respect to the data access requests from the client processor...(Nolan, col. 27, lines 53-62). Applicant discloses in the specification that “The usage policy defines a number of (i.e., one or more) rules based on a condition and a corresponding priority (page 8, lines 26-28). Kanada discloses “A policy is normally described as a sequence of rules called policy rules. A policy rule is a condition-action type rule. This means that action to take if a condition is true is described as a rule (Kanada, page 1, paragraph 8).

27. ***Applicant Argues:*** As to claim 3, Applicant states that “comparing said meta data to a number of rules defined in said usage policy, wherein assigning said priority to said transaction is based on at least part of said meta data satisfying at least on condition of said number of rules. There is simply no teaching or suggestion in Nolan or Kanada of at least these recitations.”

In response: The examiner respectfully submits that the Microsoft Computer Dictionary defines “meta data” as “data about data.” Kanada discusses “four types of policy rules” available for an operator to input into the policy server (Kanada, page 4, paragraph 72) and the scheduling rule containing “a condition, label, action items, rate unit, minimum rate, maximum rate, and parent scheduling label” (Kanada, page 5, paragraph 84). These items all constitute data about data with regards to a usage policy. Kanada also discloses “In the rule

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1708, a string of 198.168.4.1 is specified in the field of the lower end of source IP address of flow 1721 and the same is also specified in the field of upper end of source IP address of flow 1722. Thus, the rule 1708 is effective only for packets originating from the IP address 192.168.4.1” (Kanada, page 10, paragraph 148). This states the rules can then be compared against incoming data, and sorted accordingly into queues (Kanada, page 9, paragraph 137).

The limitations in regards to priority are discussed above for claim 1.

28. ***Applicant Argues:*** As to claim 5, Applicant states that Nolan fails to disclose “prioritizing a plurality of transactions received at said network storage device relative to one another.”

In response: The examiner respectfully submits that Nolan states “The storage server receives a control signal initiating a hot copy process...Parameters are maintained on the storage server... indicating a relative priority of the background hot copy process with respect to the data access requests from the client processor” (Nolan, col. 27, lines 53-62).

29. ***Applicant Argues:*** As to claims 8 and 13, Applicant states that Nolan and Kanada fail to disclose “program code for prioritizing said plurality of received transactions relative to one another.”

In response: The examiner respectfully submits that the limitations are discussed above for claims 1 and 5.

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30. ***Applicant Argues:*** As to claim 15, Applicant states “Gibson fails to teach or suggest program code for identifying said network storage device.”

In response: The examiner respectfully submits that Nolan discloses “The tree of all storage (used and unused) is shown on the left half of the display in this example, with each storage element having an icon representing what type it is and some identifying name or ID” (Nolan, col. 25, lines 26-29).

31. ***Applicant Argues:*** As to claim 7, Applicant states that “there is no teaching or suggestion here of any rules which include meta data and corresponding priorities.”

In response: The examiner respectfully submits that the limitations are discussed above for claim 3.

32. ***Applicant Argues:*** As to claim 10, Applicant states that it is unclear how the references teach or suggest “said usage policy comprises a number of rules which define a number of priorities for a number of meta data.”

In response: The examiner respectfully submits that the limitations are discussed above for claim 3.

33. ***Applicant Argues:*** As to claim 11, Applicant states “said program code reads said at least one meta data field and orders said number of transactions among other transactions in a

queue based on said at least one meta data field satisfying a condition of a rule in said usage policy...Priority scheduling in Kanada has nothing to do with prioritizing the transactions among other transactions.”

In response: The examiner respectfully submits that the limitations are discussed above for claims 1 and 5.

34. ***Applicant Argues:*** As to claim 20, Applicant states that “there is no teaching or suggestion that the transactions are prioritized based on meta data.”

In response: The examiner respectfully submits that the limitations are discussed above for claim 3.

Conclusion

35. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

36. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia Baturay whose telephone number is (571) 272-3981. The examiner can normally be reached at 7:30am - 5pm, Monday - Thursday, and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on (571) 272-3978. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AB



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SUPERVISORY PATENT EXAMINER